

## Acute Massive Gastric Dilatation Due To Volvulus: A Case Report

R. Laroussi<sup>1\*</sup>, A. Touibi<sup>1</sup>, I. Radouane<sup>1</sup>, H. Igormane<sup>1</sup>, S. Ouahid<sup>1</sup>, S. Berrag<sup>1</sup>, F. Nejari<sup>1</sup>, T. Adoui<sup>1</sup>, M. Tamzaourte<sup>1</sup>

<sup>1</sup>Department of Gastroenterology I Mohammed V of the Military Hospital Rabat, Morocco

DOI: <https://doi.org/10.36347/sasjm.2026.v12i10.006>

| Received: 28.02.2023 | Accepted: 03.04.2023 | Published: 07.10.2026

\*Corresponding author: R. Laroussi

Department of Gastroenterology I Mohammed V of the Military Hospital Rabat, Morocco

### Abstract

### Case Report

**Introduction:** Gastric Volvulus (GV) is an uncommon medical condition that sometimes is not easy to diagnose and treat, it has a broad spectrum of clinical presentations. This medical condition's high mortality rate (30%-50%) indicates an emergent accurate diagnosis followed by appropriate intervention to avoid aforementioned complications. **Case Report:** In this work we will present a case of a 16 year old girl followed for psychomotor retardation admitted to the emergency department for an occlusive syndrome on a gastric volvulus. **Conclusion:** Laparotomy is still considered the most common surgical option for patients with gastric volvulus, though laparoscopic interventions have also been described.

**Keywords:** Gastric dilatation, gastric volvulus, laparotomy.

Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

## INTRODUCTION

Acute gastric dilatation was first defined by Duplay in 1833. This entity may occur secondary to trauma, diabetes mellitus, electrolyte disturbances, gastric volvulus, infection, psychiatric or eating disorders, or in the immediate postoperative period [1]. Gastric Volvulus (GV) is an uncommon medical condition that sometimes is not easy to diagnose and treat [2], it has a broad spectrum of clinical presentations. As such, diagnosis might be delayed or missed. In patients with an acute presentation, gastric volvulus is life-threatening and requires rapid recognition and emergent surgical treatment [3, 4]. This medical condition's high mortality rate (30%-50%) indicates an emergent accurate diagnosis followed by appropriate intervention to avoid aforementioned complications [5].

In this work we will present a case of a 16 year old girl followed for psychomotor retardation admitted to the emergency department for an occlusive syndrome on a gastric volvulus.

## CASE REPORT

A 16-year-old girl with a history of psychomotor retardation since birth was admitted to the emergency department for an occlusive syndrome with cessation of feces and gas associated with acute vomiting evolving in a context of altered general condition.

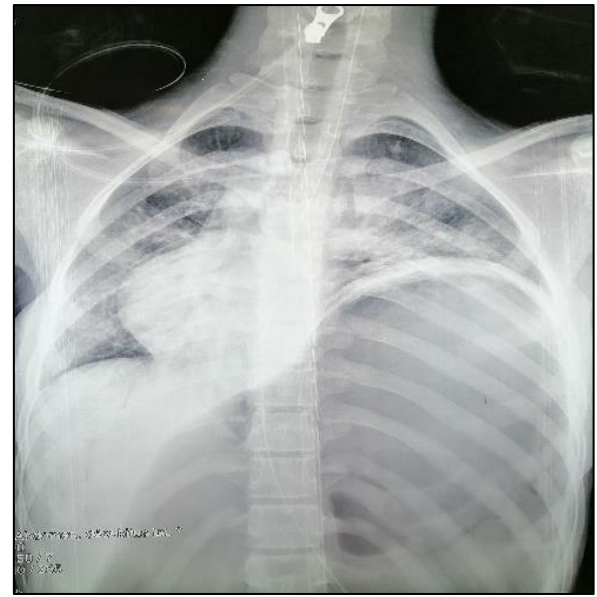
On admission the patient was conscious, hemodynamically and respiratorily stable and presented with abdominal pain and distension with diffuse abdominal tenderness associated with dehydration folds.

Biologically, the patient presented with acute functional renal failure with profound hypokalemia treated by potassium supplementation, the rest of the biological workup was without abnormality.

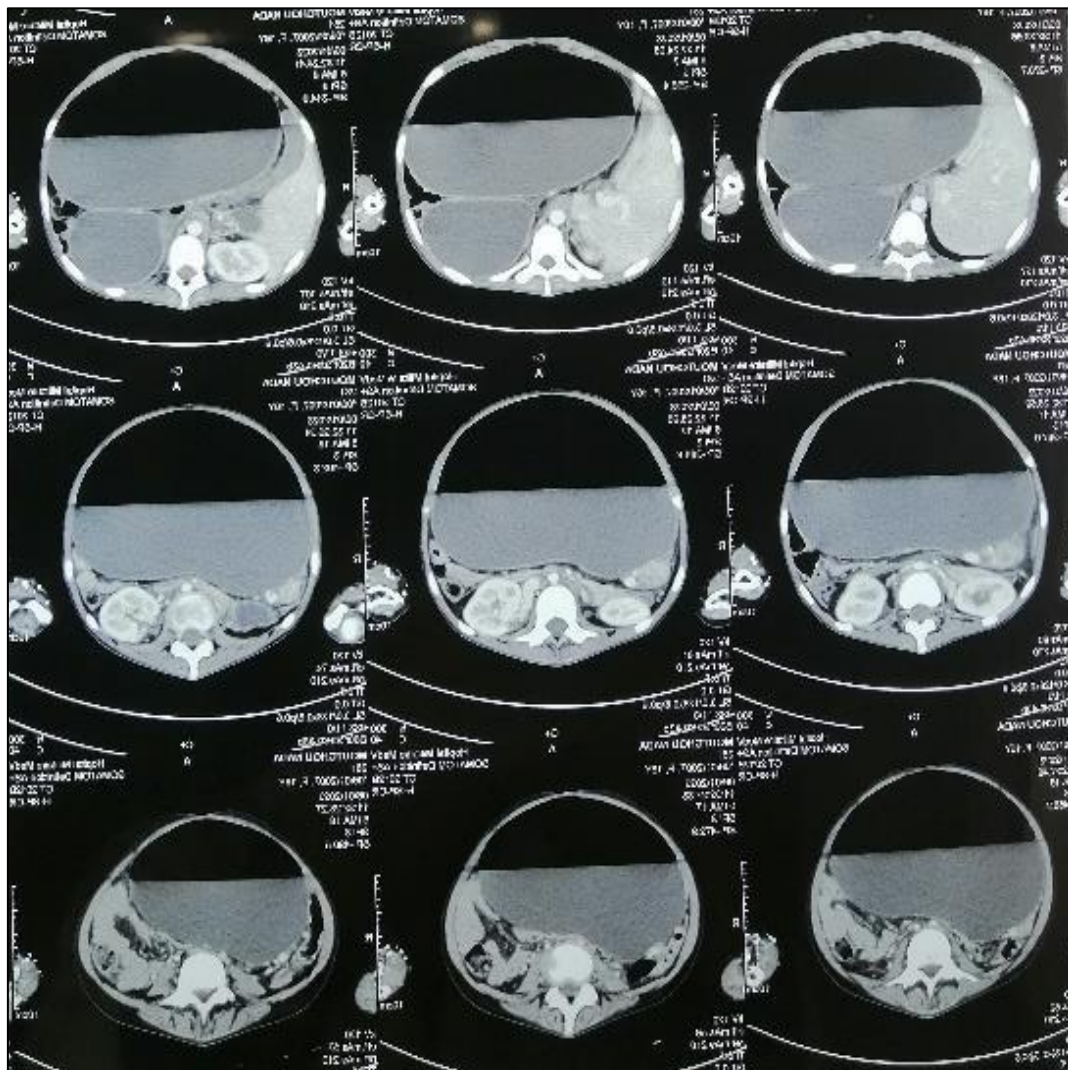
Abdominal x-ray was performed in the emergency room, which showed a massive dilatation of the stomach (Image 1) and a chest x-ray, which showed a medial deviation due to extrinsic compression by the stomach (Image 2), followed by an abdominal CT scan, which showed a high occlusion on a gastric volvulus with no sign of necrosis (Image 3).



**Image 1: Abdominal x-ray showing a massive gastric dilatation**



**Image 2: Chest X-ray showing extrinsic compression of the mediastinum by a gastric dilatation**



**Image 3: Abdominal CT scan showing an upper GI obstruction on a gastric volvulus**

The initial management was done by placing a nasogastric tube and then the patient underwent emergency surgery by laparoscopy and the exploration did not show signs of gastric necrosis and without postoperative incidents. The evolution was favorable with disappearance of the symptoms.

## DISCUSSION

GV is a rare, serious condition, and may prove lethal if not treated properly and in a timely manner [6]. GV can be categorized as primary or secondary [7]. A defect in the gastric anchoring ligaments are the main reasons for the occurrence of the primary form [8]. Evaluation of psychiatric patients with abdominal pain is difficult. A detailed anamnesis cannot be obtained, and thus, the surgeon must act based on physical examination findings and must be informed of and experienced with surgical diseases seen in psychiatric patients. Physical examination findings can widely differ amongst patients. Diagnosis can be supported by radiological imaging of gastric dilatation and pneumoperitoneum [9]. Gastric volvulus is very accurately diagnosed on Abdominal CT scan where it shows an upside-down stomach with the pylorus lying higher than gastro-esophageal junction. The upper gastrointestinal series is also a useful tool for the diagnosis [10]. In contrast, chronic intermittent gastric volvulus is seen largely in patients with associated neurologic disorders and mental retardation. The occurrence of Organoaxial volvulus in this patient population might be related to the chronic gastric distention often seen in these patients [11] and attributed to aerophagia [12]. Acute gastric dilatation occurs mostly in women (67%) and is frequently found in the lesser curvature of the stomach [13]. AGD is also associated with a considerably high mortality rate (73%) [14]. Initial management of gastric volvulus is by nasogastric decompression, for decreasing the intragastric pressure. Then after, surgery is usually performed in order to check gastric viability of stomach, resect the gangrenous portion, and to perform de-rotation and gastropexy with or without gastrotomy with repair of secondary factors associated [15, 16]. Laparotomy is still considered the most common surgical option for patients with gastric volvulus, though laparoscopic interventions have also been described. Surgical reduction of volvulus with or without gastropexy is the most commonly performed procedure [2, 8].

## CONCLUSION

Gastric Volvulus (GV) is an uncommon medical condition that sometimes is not easy to diagnose and treat. This medical condition's high mortality rate (30%-50%) indicates an emergent accurate diagnosis followed by appropriate intervention to avoid aforementioned complications. Laparotomy is still considered the most common surgical option for

patients with gastric volvulus, though laparoscopic interventions have also been described.

## REFERENCES

1. Akhtar, A., Siddiqui, F. S., Sheikh, A. A. E., Sheikh, A. B., & Perisetti, A. (2018). Gastric volvulus: a rare entity case report and literature review. *Cureus*, 10(3), e2312. Available from: <https://www.cureus.com/articles/11429-gastric-volvulus-a-rare-entity-case-report-and-literature-review>
2. Teague, W. J., Ackroyd, R., Watson, D. I., & Devitt, P. G. (2000). Changing patterns in the management of gastric volvulus over 14 years. *British Journal of Surgery*, 87(3), 358-361.
3. Andiran, F. A. T. İ. H., Tanyel, F. C., Balkanci, F. E. R. H. U. N., & Hiçsönmez, A. (1995). Acute abdomen due to gastric volvulus: diagnostic value of a single plain radiograph. *Pediatric radiology*, 25, S240-S240.
4. Shivanand, G., Seema, S., Srivastava, D. N., Pande, G. K., Sahni, P., Prasad, R., & Ramachandra, N. (2003). Gastric volvulus: acute and chronic presentation. *Clinical Imaging*, 27(4), 265-268.
5. Kumar, B., Kalra, T., Namdeo, R., Soni, R. K., & Sinha, A. (2017). Acute gastric volvulus: A vicious twist of tummy-case report. *International Journal of Surgery Case Reports*, 30, 81-85. <http://dx.doi.org/10.1016/j.ijscr.2016.12.005>, PMC.
6. Channer, L. T., Squires, G. T., & Price, P. D. (2000). Laparoscopic repair of gastric volvulus. *JSL: Journal of the Society of Laparoendoscopic Surgeons*, 4(3), 225-230.
7. Cardile, A. P., & Heppner, D. S. (2011). Gastric volvulus, Borchardt's triad, and endoscopy: a rare twist. *Hawaii medical journal*, 70(4), 80-82.
8. Rashid, F., Thangarajah, T., Mulvey, D., Larvin, M., & Iftikhar, S. Y. (2010). A review article on gastric volvulus: a challenge to diagnosis and management. *International journal of surgery*, 8(1), 18-24. <http://dx.doi.org/10.1016/j.ijssu.2009.11.002> (PubMed)
9. Zerańska, M., Tomaszewicz-Libudzić, C., Jagielska, G., & Komender, J. (2002). Surgical complications occurring during hospitalization of patients with anorexia nervosa--literature review and a discussion of three cases. *Psychiatria polska*, 36(4), 579-589.
10. Peterson, C. M., Anderson, J. S., Hara, A. K., Carenza, J. W., & Menias, C. O. (2009). Volvulus of the gastrointestinal tract: appearances at multimodality imaging. *Radiographics*, 29(5), 1281-1293. Available from: <https://pubs.rsna.org/doi/abs/10.1148/rg.295095011>
11. Bautista-Casasnovas, A., Varela-Cives, R., Fernandez-Bustillo, J. M., Martínez, E. E., Arias, M. P., Jeremias, A. V., ... & Guitián, J. P. (2002).

- Chronic gastric volvulus: is it so rare?. *European journal of pediatric surgery*, 12(02), 111-115.
12. Ziprkowski, M. N., & Teele, R. L. (1979). Gastric volvulus in childhood. *American Journal of Roentgenology*, 132(6), 921-925.
  13. Saul, S. H., Dekker, A., & Watson, C. G. (1981). Acute gastric dilatation with infarction and perforation: report of fatal outcome in patient with anorexia nervosa. *Gut*, 22(11), 978-983.
  14. Turan, M., Şen, M., Canbay, E., Karadayi, K., & Yildiz, E. (2003). Gastric necrosis and perforation caused by acute gastric dilatation: report of a case. *Surgery today*, 33, 302-304.
  15. Rashid, F., Thangarajah, T., Mulvey, D., Larvin, M., & Iftikhar, S. Y. (2010). A review article on gastric volvulus: a challenge to diagnosis and management. *International journal of surgery*, 8(1), 18-24.
  16. Darani, A., Mendoza-Sagaon, M., & Reinberg, O. (2005). Gastric volvulus in children. *Journal of pediatric surgery*, 40(5), 855-858. Available from. <http://www.jpedsurg.org/article/S0022346805000965/fulltext>.